

REMARKS

In the Office Action dated December 26, 2001, the Examiner failed to indicate that the Information Disclosure Statements submitted on September 22, 2000 and October 31, 2001 have been considered. The Applicants respectfully request the Examiner to indicate that the Information Disclosure Statements were considered by making appropriate notations on and returning the previously submitted PTO-1449 form.

The Examiner also failed to acknowledge the claim for foreign priority under 35 U.S.C. § 119(a)-(d) and 365(c) and the receipt of a certified copy of Japanese Patent Application No. 11-099353 submitted on April 10, 2001. The Examiner only acknowledges, in item 15 of the Office Action Summary, a claim for domestic priority under 35 U.S.C. § 120. Please note that Applicants are also claiming foreign priority under 35 U.S.C. § 119(a)-(d) and 365(c) in the present application. Thus, Applicants respectfully request the Examiner to acknowledge the claim for foreign priority under 35 U.S.C. § 119 by making appropriate notations on the Office Action Summary (i.e., item 13) or the like in the next communication.

In the outstanding Office Action, the Examiner: rejected claims 1, 7, 12, 13, and 17 under 35 U.S.C. § 112, ¶2, as being indefinite; rejected claims 1-3, 5-14, 16-23, and 25 under 35 U.S.C. § 102(e) as being anticipated by Hirano et al. (U.S. Pat. No. 6,120,661). In addition, the Examiner indicated that claims 4, 15, 24, and 26 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, ¶2, and to include all of the limitations of the base claim and any intervening claims.

Claims 1-26 are pending in this application, with claims 1, 2, 6, 12, 13, 16, 22, and 23 being independent claims. Claims 1-4, 6-7, 12-16, 18, 22-24, and 26 are

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

amended to more clearly define features of the present invention. No new matter has been entered.

Applicants acknowledge the Examiner's indication of allowable subject matter in claims 4, 15, 24, and 26. However, Applicants have not rewritten these claims to include all of the limitations of the base claim and any intervening claims.

Applicants respectfully request reconsideration and withdrawal of the objections and rejections set forth in the above-identified Office Action.

REJECTION UNDER 35 U.S.C. § 112, ¶2

Claims 1, 7, 12, 13, and 17 are rejected under 35 U.S.C. § 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner stated that there are two possible interpretations for the phrase "a base metal in which the heater and the ceramic-metal composites are cast."

Although Applicants do not necessarily agree with the Examiner, Applicants have amended the claims to cure the rejections by more clearly defining the features of the present invention. Applicants believe that claims 1-26 fully satisfy the requirements of 35 U.S.C. § 112, ¶2. Thus, reconsideration and withdrawal of these rejections is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102(e)

Claims 1-3, 5-14, 16-23, and 25 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hirano et al. (U.S. Pat. 6,120,661).

Applicants presently are preparing an English language translation of the Japanese priority document, Japanese Patent Application No. 11-099353 filed on April

6, 1999, in order to perfect the claim to the foreign priority filing date and antedate the reference of Hirano et al. Applicants believe that the reference of Hirano et al. should be excluded from the rejection under 35 U.S.C. § 102(e) in the present application, and that this rejection should be therefore moot. The certified translation will be submitted as soon as it is available.

Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

CONCLUSION

Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Attached hereto is a marked-up version of the changes made to the specification and claims 1-4, 6-7, 12-16, 18, 22-24, and 26 by this amendment.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By: 

David W. Hill
Reg. No. 28,220

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

APPENDIX TO AMENDMENT

IN THE SPECIFICATION:

Paragraph beginning at line 36 of page 10 and ending at line 2 of page 11:

Upon application of the plasma generation high frequency voltage to the upper electrode 70, the film forming gases are converted [a] into a plasma, activated, and reacted to form a film of, for example, SiOF on the surface of the waver.

IN THE CLAIMS:

1. (Amended) An electrode comprising:

a heater arranged on a plane;

an upper ceramic-metal composite arranged above the heater; and

an lower ceramic-metal composite arranged below the heater,

[a pair of ceramic-metal composites each arranged above and below the heater respectively so that the heater is positioned therebetween; and]

wherein [a base metal in which] the heater and the upper and lower ceramic-metal composites are cast in a base metal.

2. (Amended) An electrode comprising:

a heater arranged on a plane; and

a core metal plate arranged substantially parallel to the plane and adjacent to the heater; [and]

wherein [a base metal in which] the heater and the core metal are cast in a base metal.

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FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

3. (Amended) The electrode according to claim 2, wherein the core metal plate comprises a plurality of base metal communication holes [are formed through the core metal plate].
4. (Twice Amended) The electrode according to claim 2, wherein a lower surface of the base metal is configured to adopt a shower head portion that supplies a gas [is provided on a lower surface of the base metal].
6. (Amended) A susceptor comprising:
 - a heater arranged on a plane;
 - an upper ceramic-metal composite arranged above the heater;
 - an lower ceramic-metal composite arranged below the heater; and
 - [upper and lower ceramic-metal composites arranged so that the heater is positioned therebetween; and]
 - a ceramic electrostatic chuck [that attracts and holds] for holding an object to be treated, the electrostatic chuck having a coefficient of linear thermal expansion substantially the same as that of the upper ceramic-metal composite, and being joined to an upper surface of the upper ceramic-metal composite.
7. (Amended) The susceptor according to claim 6 [further comprising a base metal in which], wherein the heater and the upper and lower ceramic-metal composites are cast in a base metal.
12. (Amended) A plasma processing apparatus comprising:
 - a processing vessel;
 - an electrode including:

FINNEGAN
HENDERSON
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GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

a heater arranged on a plane;
an upper ceramic-metal composite arranged above the heater; and
an lower ceramic-metal composite arranged below the heater,
[a pair of ceramic-metal composites each arranged above and
below the heater so that the heater is positioned therebetween;
and]
wherein [a base metal in which] the heater and the upper and lower
ceramic-metal composites are cast in a base metal; and
a high frequency power [sources] source that applies a high frequency
voltage to the electrode.

13. (Amended) A plasma processing apparatus comprising:

a processing vessel,
an electrode including:
a heater arranged on a plane; and
a core metal plate arranged substantially parallel to the plane and
adjacent to the heater; [and]
wherein [a base metal in which] the heater and the ceramic-metal
composites are cast in a base metal; and
a high frequency power [sources] source that applies a high frequency
voltage to the electrode.

14. (Amended) The apparatus according to claim 13, wherein the core metal plate
comprises a plurality of base metal communication holes [are formed through the
core metal plate].

FINNEGAN
HENDERSON
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GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

15. (Twice Amended) The plasma processing apparatus according to claim 12, wherein a lower surface of the base metal is configured to adopt a shower head portion that supplies a gas [is provided on a lower surface of the base metal].
16. (Amended) A plasma processing apparatus comprising:
 - a processing vessel,
 - a susceptor including:
 - a heater arranged on a plane;
 - an upper ceramic-metal composite arranged above the heater;
 - an lower ceramic-metal composite arranged below the heater; and
 - [upper and lower ceramic-metal composites arranged so that the heater is positioned therebetween; and]
 - a ceramic electrostatic chuck [that attracts and holds] for holding an object to be treated, the electrostatic chuck having a coefficient of linear thermal expansion substantially the same as that of the upper ceramic-metal composite, and being joined to an upper surface of the upper ceramic-metal composite; and
 - a high frequency power source that applies a high frequency voltage to the susceptor.
18. (Twice Amended) The plasma processing apparatus according to claim 16, wherein the susceptor is provided with at least one heat transfer gas [passages that supplies] passage for supplying a heat transfer gas to a surface of the electrostatic chuck[, the passage passing through the susceptor].
22. (Amended) A method of making an electrode, comprising [the steps of]:

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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- placing a heater and a pair of porous ceramics in a mold with a positional relationship where the pair of porous ceramics are arranged above and below the heater respectively so that the heater is positioned therebween; and
- pouring a molten base metal into the mold to cast the pair of porous ceramics and the heater in the base metal, thereby infiltrating the porous ceramic with the base metal in order to form a ceramic-metal composite.
23. (Amended) A method of making a susceptor, comprising [the steps of]:
- placing a heater and a pair of porous ceramics in a mold with a positional relationship where the pair of porous ceramics are arranged above the below the heater respectively so that the heater is positioned therebween; and
- pouring a molten base metal into the mold to cast the pair of porous ceramics and the heater in the base metal, thereby infiltrating the porous ceramic with the base metal in order to form a ceramic-metal composite.
24. (Amended) The plasma processing apparatus according to claim 1, wherein a lower surface of the base metal is configured to adopt a shower head portion that supplies a gas [is provided on a lower surface of the base metal].
26. (Amended) The electrode according to claim 13, wherein a lower surface of the base metal is configured to adopt a shower head portion that supplies a gas [is provided on a lower surface of the base metal].

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DUNNER LLP

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